

INTERNATIONAL SEARCH REPORT

In International Application No
PCT/IB2004/050993

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B26B19/40 B26B19/38 A45D26/00 A61C17/22 A47K7/04
A61H7/00 F16K15/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B26B A45D A61C A47K A61H B65D F16K A46B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | WO 02/41802 A (PROCTER & GAMBLE) 30 May 2002 (2002-05-30) page 6 - page 7; figures 1,7 | 1,7,8 |
| A | CH 653 595 A (RAYMOND VOISARD) 15 January 1986 (1986-01-15) page 2, line 16 - page 3, line 10; figures 1-3 | 1,8 |
| A | US 2002/029478 A1 (HAWS CHRISTOPHER MARTIN ET AL) 14 March 2002 (2002-03-14) paragraphs '0035!', '0036!'; figures 1-9 | 1,8 |
| A | US 2002/032964 A1 (VAN TOOR JOHANNES H ET AL) 21 March 2002 (2002-03-21) paragraphs '0044! - '0059!'; figures 1-13 | 1,8 |
| | -/-- | |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

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 Int onal Application No
 PCT/IB2004/050993

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | US 2003/116197 A1 (TAYLOR RICHARD K) 26 June 2003 (2003-06-26) abstract; figures 1,5 ----- | 1,8 |
| A | US 3 217 720 A (BERNARD CYZER) 16 November 1965 (1965-11-16) column 2, line 58 - column 3, line 31; figures 1,2 ----- | 1,8 |
| A | US 4 375 864 A (SAVAGE CHESTER) 8 March 1983 (1983-03-08) column 5, line 57 - column 6, line 56; figures 1,2,6,7 ----- | |
| A | US 5 134 775 A (SCHWARZ MICHAEL ET AL) 4 August 1992 (1992-08-04) column 9, line 12 - column 11, line 20; figures 9,10,18,19 & WO 03/086892 A (TECHNOCAPS LTD ; MESTRINER ROMEO (IT)) 23 October 2003 (2003-10-23) ----- | 1,8 |
| A | US 5 738 144 A (ROGERS RUSSELL L) 14 April 1998 (1998-04-14) column 1, lines 4-17 column 3, line 42 - column 4, line 17; figures 2,5 ----- | 1,8 |
| A | US 6 039 301 A (WESTERHOF WILLEM A) 21 March 2000 (2000-03-21) abstract; figure 1 ----- | 1,8 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

In International Application No

PCT/IB2004/050993

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|----------------------------|---------------------|
| WO 0241802 | A | 30-05-2002 | US 6648641 B1 | 18-11-2003 |
| | | | AU 3044402 A | 03-06-2002 |
| | | | AU 5326501 A | 03-06-2002 |
| | | | CA 2424268 A1 | 30-05-2002 |
| | | | CA 2424445 A1 | 30-05-2002 |
| | | | CN 1474672 T | 11-02-2004 |
| | | | CN 1476314 T | 18-02-2004 |
| | | | EP 1335678 A1 | 20-08-2003 |
| | | | EP 1335679 A1 | 20-08-2003 |
| | | | JP 2004516872 T | 10-06-2004 |
| | | | JP 2004513744 T | 13-05-2004 |
| | | | TW 514516 B | 21-12-2002 |
| | | | WO 0241801 A1 | 30-05-2002 |
| | | | WO 0241802 A1 | 30-05-2002 |
| | | | US 2003194678 A1 | 16-10-2003 |
| CH 653595 | A | 15-01-1986 | CH 653595 A5 | 15-01-1986 |
| US 2002029478 | A1 | 14-03-2002 | AT 267072 T | 15-06-2004 |
| | | | AU 5563199 A | 14-03-2000 |
| | | | BR 9913045 A | 08-05-2001 |
| | | | CA 2339022 A1 | 02-03-2000 |
| | | | CN 1313804 T | 19-09-2001 |
| | | | DE 69917462 D1 | 24-06-2004 |
| | | | EP 1105260 A1 | 13-06-2001 |
| | | | WO 0010780 A1 | 02-03-2000 |
| US 2002032964 | A1 | 21-03-2002 | AT 194790 T | 15-08-2000 |
| | | | CN 1199359 A ,B | 18-11-1998 |
| | | | CN 1199360 A ,B | 18-11-1998 |
| | | | DE 69702592 D1 | 24-08-2000 |
| | | | DE 69702592 T2 | 15-03-2001 |
| | | | EP 1462225 A1 | 29-09-2004 |
| | | | EP 0857101 A1 | 12-08-1998 |
| | | | EP 0858384 A1 | 19-08-1998 |
| | | | EP 0861142 A1 | 02-09-1998 |
| | | | ES 2150268 T3 | 16-11-2000 |
| | | | WO 9808659 A1 | 05-03-1998 |
| | | | WO 9808660 A1 | 05-03-1998 |
| | | | WO 9808661 A1 | 05-03-1998 |
| | | | JP 11514562 T | 14-12-1999 |
| | | | JP 2002514951 T | 21-05-2002 |
| | | | JP 2000500055 T | 11-01-2000 |
| | | | US 6126669 A | 03-10-2000 |
| | | | US 5993180 A | 30-11-1999 |
| | | | US 6308413 B1 | 30-10-2001 |
| | | | US 6312436 B1 | 06-11-2001 |
| | | | AT 246576 T | 15-08-2003 |
| | | | DE 69816960 D1 | 11-09-2003 |
| | | | DE 69816960 T2 | 17-06-2004 |
| | | | EP 0930960 A1 | 28-07-1999 |
| | | | ES 2202822 T3 | 01-04-2004 |
| | | | WO 9855274 A1 | 10-12-1998 |
| | | | JP 2000516124 T | 05-12-2000 |
| | | | US 6131288 A | 17-10-2000 |
| US 2003116197 | A1 | 26-06-2003 | EP 1458302 A2 | 22-09-2004 |
| | | | WO 03053271 A2 | 03-07-2003 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IB2004/050993

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| US 3217720 | A | 16-11-1965 | GB 989954 A | 22-04-1965 |
| US 4375864 | A | 08-03-1983 | BE 889672 A1 | 18-01-1982 |
| | | | FR 2491191 A1 | 02-04-1982 |
| | | | JP 57055894 A | 03-04-1982 |
| | | | US RE32354 E | 17-02-1987 |
| US 5134775 | A | 04-08-1992 | DE 8911246 U1 | 24-01-1991 |
| | | | AT 111009 T | 15-09-1994 |
| | | | AT 164798 T | 15-04-1998 |
| | | | DE 59007047 D1 | 13-10-1994 |
| | | | DE 59010818 D1 | 14-05-1998 |
| | | | EP 0418483 A1 | 27-03-1991 |
| | | | EP 0605397 A1 | 06-07-1994 |
| | | | ES 2063864 T3 | 16-01-1995 |
| WO 03086892 | A | 23-10-2003 | WO 03086892 A1 | 23-10-2003 |
| US 5738144 | A | 14-04-1998 | NONE | |
| US 6039301 | A | 21-03-2000 | AT 268444 T | 15-06-2004 |
| | | | CN 1120314 B | 03-09-2003 |
| | | | DE 69824254 D1 | 08-07-2004 |
| | | | EP 0910764 A1 | 28-04-1999 |
| | | | WO 9848203 A1 | 29-10-1998 |
| | | | JP 2000513077 T | 03-10-2000 |